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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/748,316

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Jeffrey Robert Roose

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8025

7590

04/29/2008

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EXAMINER

LAURITZEN, AMANDA L

ART UNIT

PAPER NUMBER

3737

MAIL DATE

DELIVERY MODE

04/29/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/748,316	<b>Applicant(s)</b> ROOSE, JEFFREY ROBERT	
	<b>Examiner</b> A. LAURITZEN	<b>Art Unit</b> 3737	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 25 May 2007.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-15 and 17-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-15 and 17-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

This action is in response to communications filed 25 May 2007. Amendments to the claims are not interpreted to introduce new matter.

***Response to Arguments***

Applicant's arguments filed 25 May 2007 have been fully considered and are persuasive but are moot in view of new grounds of rejection. In light of its deficiencies, the previous rejection is withdrawn and new grounds of rejection are presented in view of Lang et al. (US 2003/0216669). However, Examiner addresses pertinent details regarding Lang et al. (US 2004/0138754) relied on in the previous rejection herein below.

Regarding providing generation of a bone surface image, Lang et al. disclose shaping based on an electronic image that depicts the diseased cartilage as well as bone and/or cartilage that composes the mating surface of the implant [0012], [0016], [0025], [0078], with surface images in the form of a topographical map.

Regarding utilizing image data as “control data” for fabrication of a surgical guide, Examiner understands that with the automatic and machine fabrication schemes disclosed in Lang et al. ‘754 at [0033] that are made from images of the implant site. To more clearly meet this limitation, Examiner relies upon Dore et al. (US 2003/0236473).

## **DETAILED ACTION**

### ***Claim Objections***

1. Claim 18 and the drawings are objected to because the claim recites specific structure that is not depicted in the drawings. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the “articulating arm with positional gyros mounted at pivotal joints of the articulating arm” of the reference pointer must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-7 and 8-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lang et al. (US 2003/0216669 in view of Dore et al. (2003/0236473).

Lang et al. disclose a system and method for designing a surgical guide for a joint replacement prosthesis and delineate generating a bone surface image from bone CT image data ([0092], in which the bone surface image is a topographical map). Additionally disclosed is a method for superimposing an image of a prosthetic implant on a bone surface image [0028], [0030]. While Lang et al. disclose rapid prototyping and stereolithographic techniques, which are generally understood to include using control data from an image or image creating program, Lang et al. does not specifically address this feature. However, in the same field of endeavor, Dore et al. teach using image data to control implant construction, which results in “machine tool control data” [0016, Dore et al]. It would have been obvious to one of ordinary skill in the pertinent art at the time of invention to use image data to direct automatic construction of a prosthetic device, as taught by Dore et al.

Regarding claims 3-5 and 10-12, an intra-operative (surgical guide) image includes at least one marker [0096, Lang et al]. Lang et al. teach laser and/or cutting treatment of many materials, including polymer (resins) [0015-0016], and such processes are well known in rapid prototyping schemes.

Regarding system claims 13-14, the system of Lang et al. as modified Dore et al. is inherently capable of generating image data from an acetabulum bone and an acetabular cup and/or a femur bone and femoral stem.

3. Claims 15 and 17-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Carson et al. (US 2002/0147455, now USPN 6,923,817).

Carson et al. teach generally an imaging system for tracking patient anatomy and implant prostheses. The memory ([0094] and Fig. 1) serves as a repository. A mouse [0094] serves as a pointing device/reference pointer and it is well-known to skilled artisans to use wireless pointing devices. Position and orientation image data are tracked in three dimensions [0089]. Images (and image data) are both registered and superimposed [0103], [0115]. The system is inherently capable for use in imaging an acetabular cup of acetabulum bone.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to A. LAURITZEN whose telephone number is (571)272-4303. The examiner can normally be reached on Monday - Friday, 8:30am - 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian L. Casler can be reached on (571) 272-4956. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3737

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/A. L./  
Examiner, Art Unit 3737

A. LAURITZEN  
Examiner  
Art Unit 3737

/Brian L Casler/

Supervisory Patent Examiner, Art Unit 3737